

## REMARKS

The applicants appreciate the Examiner's thorough examination of the application and request reexamination and reconsideration of the application in view of the following remarks.

Claims 1, 4, 6-11, 14, 15, 17, 18, and 20-22 stand rejected under 35 USC §103(a) as allegedly being unpatentable by U.S. Patent No. 6,490,455 to Park et al. in view of U.S. Patent No. 6,832,093 to Ranta. Applicants herein amend independent claims 1, 8, 11, 18, and 23. Support for these amendments can be found at page 14, lines 5-12 and page 30, lines 1-3.

The subject invention results from the realization that wireless communication devices such as cellular telephones can, without jamming, be effectively controlled in secure areas or any place where they are deemed an annoyance, but also not intervened with outside of a predefined area, by a control unit which tricks the wireless communication device into believing it has established a communication channel with the base station of a nearby cellular tower.

By measuring the absolute field strength of all received transmissions output by surrounding base stations and recording the information transmitted by the base stations, the control unit of the subject invention sets the power level of its transmitter to have an absolute field strength greater than the highest measured absolute field strength detected from a corresponding base station and transmits a signal containing information that identifies it as if it was an actual base station. Then, the cell phone transmits an interface signal, anticipating a response from the base station. The control unit then transmits a signal back to the cell phone mimicking the signal which would be transmitted by an actual base station. But, since the cell phone believes the control unit is a base station, the control unit is able to control the cell phone to prevent incoming or outgoing calls with its carrier network. This may be accomplished by instructing the cell phone to lower its transmission power or change its transmitting frequency so

that further transmissions from the wireless communication device do not reach any corresponding surrounding base stations.

Meanwhile, the wireless communication device engages in a communication protocol with the receiver and transmitter as if they were a base station connected to the carrier network. But while the cellular telephone is within the jurisdiction of control unit of the subject invention, it is not considered as being “on” to the regular (outside) cellular system to which it had been connected outside the influence of the control unit. Therefore, any calls or messages that would have been receivable by the cellular telephone would be handled by the regular cell system in the same manner as if the cellular telephone had been turned off. See the subject application at page 17, lines 18-22.

Park et al. only relates to a method and apparatus for detecting a mobile phone in an idle state. Signal-generating unit 300, Fig. 3, generates a pseudo base station signal for transmission to a mobile phone in a detection area. Detecting unit 400 detects a response signal from the mobile phone that it transmits in response to the pseudo base station signal. When detecting unit 400 detects the response signal from the mobile phone, alarm-generating unit 500 generates an alarm to alert the person carrying the mobile phone or a supervisor that a mobile phone in idle state is present and should be turned off. See Park et al., column 9, lines 41-55. As noted at column 3, lines 33-38, Park et al. relates only to when a mobile phone is in an idle state, rather than when the mobile phone is powered-on and a communication channel is already established. Moreover, Park et al. does not teach, disclose or suggest transmitting information to a mobile phone to control the mobile phone to prevent use of the mobile phone with its carrier network in a predefined area, as claimed by applicants. With Park's system, the mobile phone can still make and receive calls via the carrier network.

To allegedly overcome the deficiencies of Park et al., the Examiner combines it with Ranta. Ranta relates to a system for restricting the operation of a mobile phone in a certain area. One drawback of the apparatus disclosed in Ranta is that the mobile phone needs to receive, understand, and implement instructions unique to its carrier network to place restrictions on the mobile phone. For example, Ranta discloses that the cell phone must be able to understand the carrier network's unique instructions: "We will assume that a simple 'beacon base station' embodiment of the invention is used and that once the mobile terminal has selected the cell of a beacon base station, it will be able to receive orders concerning the nature of the required restricted mode." See Ranta at column 12, lines 60-64 (emphasis added). Ranta also discloses that with its invention, the beacon base station must "invariably" transmit a corresponding command which the mobile terminals must have been programmed to obey:

Imposing such limitations to the acoustic emissions of the mobile terminals that should be realised [sic] by changes in the settings of the terminals requires invariably that the beacon base station transmits a corresponding command which the mobile terminals have been programmed to obey. Consequently, in the context of acoustic restrictions the invention is only applicable if the cellular radio system comprises suitably equipped terminals

*Id.* at column 6, lines 57-64 (emphasis added). The mobile phone's need to receive, understand and implement the carrier network's unique instructions is also made clear in Figure 3 (see element 306) of Ranta and the corresponding text at column 13, lines 1-22, which illustrates the operation of the beacon base station.

Thus, Ranta fails to teach, disclose or suggest transmitting information to a mobile phone to control the mobile phone to prevent use of the mobile phone with its carrier network in a predefined area, as claimed by Applicants. Ranta also fails to teach, disclose or suggest a wireless communication device engaging in a communication protocol with the receiver and

transmitter as if they were a base station connected to the carrier network, as claimed by Applicants. Since both Ranta and Park et al. fail to disclose these features, the combination of these references fails to teach or suggest the invention as claimed by Applicants.

In contrast to Ranta and Park et al., the subject invention does not rely upon transmitting information about the nature of the restrictions to the mobile terminal, nor does it rely upon unique instructions to the mobile terminal, nor does it rely upon the mobile terminal's ability to understand and implement unique instructions. The subject invention utilizes standard instructions from the many instructions that comprise the various protocol standards. The mobile phone is not advised about restrictions, nor about the nature of any restrictions that the proprietor of the restricted area has imposed. The mobile phone continues to operate as if it were in a normal public network, i.e., in communication with its carrier network, oblivious to the fact that it has been removed from its carrier network.

Claim 1 of the subject invention recites "[a] method of intervening between a wireless communication device and a base station, the method comprising: employing a receiver to scan for transmissions from multiple surrounding base stations; measuring the absolute field strength of all received transmission and recording the information transmitted by the base stations; setting the transmission power level of a transmitter to have an absolute field strength greater than the highest measured absolute field strength detected from a corresponding base station; receiving an interface signal from a wireless communication device; and transmitting to the wireless communication device the corresponding information to thereafter control the wireless communication device by establishing a communication channel independent of a carrier network and between the wireless communication device and the receiver and transmitter instead of between the wireless communication device and a surrounding base station to prevent use of

the wireless communication device with its carrier network proximate the receiver and transmitter, the wireless communication device engaging in a communication protocol with the receiver and transmitter as if they were a base station connected to the carrier network."

(Emphasis added.)

As noted above, both Park et al. and Ranta fail to teach, disclose or suggest transmitting information to a mobile phone to control the mobile phone to prevent use of the mobile phone with its carrier network in a predefined area, as claimed by Applicants. Park et al. and Ranta also both fail to teach, disclose or suggest a wireless communication device engaging in a communication protocol with the receiver and transmitter as if they were a base station connected to the carrier network, as claimed by Applicants. Since both Park et al. and Ranta fail to disclose these features, the combination of these references fails to produce the invention as claimed by Applicants.

Furthermore, the Examiner fails to offer a sufficient explanation of why there would be a teaching, motivation, or suggestion to combine the teachings of Park et al. and Ranta in the first place. The Examiner states in para. 2 of the Office Action dated September 9, 2005 that "one with ordinary skill in the art at the time the invention was made [would] provide the above teachings of Ranta and Park to provide an economically attractive and functionally reliable solution of operating mobile devices in restricted areas." However, it would not be economical to combine the beacon base station of Ranta, which communicates with a public carrier network, with the Park et al. apparatus, which merely detects a mobile phone in an idle state and generates an alarm. Also, there is no suggestion in either Ranta or Park et al. that the apparatus in one is more functionally reliable than the other. Thus, the Examiner fails to provide a sufficient teaching, motivation or suggestion to combine these two references as the Federal Circuit requires.

When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. See, e.g., McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) ("the central question is whether there is reason to combine [the] references," a question of fact drawing on the Graham factors).

"The factual inquiry whether to combine references must be thorough and searching." Id. It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. See, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris Inc., 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'") (quoting C.R. Bard, Inc., v. M3 Systems, Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."); In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) ("teachings of references can be combined only if there is some suggestion or incentive to do so.") (emphasis in original) (quoting ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)).

The need for specificity pervades this authority. See, e.g., In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed"); In re Rouffet, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ("even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious."); In re Fritch, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination "only by showing some objective teaching in the prior art or that knowledge generally available to one of

ordinary skill in the art would lead that individual to combine the relevant teachings of the references").

*In re Sang Su Lee*, 277 F. 3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

Hence, there is no adequate suggestion that Park et al.'s apparatus for detecting a mobile phone in an idle state could be used with a more complex beacon base station, nor is there any suggestion that Ranta's beacon base station could be used with apparatus that merely detects a mobile phone in an idle state. Neither reference discusses how a transmitter could prevent use of a mobile phone with its carrier network in a predefined area while the phone engages in communication protocol as if it was connected to the carrier network. Only the applicants' own disclosure teaches this and it is improper to use the applicants' disclosure as a blue print for conducting a hindsight §103 analysis.

Accordingly, the combination of Park et al. and Ranta does not disclose or suggest the subject invention as claimed by Applicants. Applicants respectfully request that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

Claims 2, 12 and 19 stand rejected under 35 USC §103(a) as allegedly being unpatentable over Park et al. in view of Ranta and in further view of U.S. Patent No. 6,438,385 to Heinonen; claims 3 and 13 stand rejected under 35 USC §103(a) as allegedly being unpatentable over Park et al. in view of Ranta and in further view of U.S. Patent No. 6,128,507 to Takai; claims 5, 16, 23 and 25 stand rejected under 35 USC §103(a) as allegedly being unpatentable over Park et al. in view of Ranta; and claim 24 stands rejected under 35 USC §103(a) as allegedly being unpatentable over Park et al. in view of Ranta and in further view of U.S. Patent No. 6,496,104 to Kline. Since each of the claims rejected under 35 USC §103(a) depends from either of independent claims 1, 8, 18 or 23, they are patentable for at least the reasons stated above and are

further patentable because they include one or more additional features. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections under 35 USC §103(a).

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned or his associates collect in Waltham, Massachusetts at (781) 890-5678.

Respectfully submitted,

A handwritten signature in cursive script, reading "David W. Poirier", written over a horizontal line.

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